

CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

What is claimed is:

1. (Withdrawn) A transmission system to drive a wheel comprising:
a pair of motors, each motor comprising:
a motor shaft; and,
a drive cone coupled to a first end of the motor shaft;
wherein the drive cone of each motor engages opposing side portions of the wheel to rotate the wheel.
2. (Withdrawn) The transmission system of claim 1, where the drive cone is shaped to conform to a shape of the wheel.
3. (Withdrawn) The transmission system of claim 1, where the motor shafts of the pair of motors are parallel to each other.
4. (Withdrawn) The transmission system of claim 1, further comprising a tachometer system coupled to one motor shaft of one of the motors in the pair of motors to measure the rotation of the motor shaft.
5. (Withdrawn) The transmission system of claim 4, wherein the tachometer system comprises a tachometer disk coupled to the motor shaft of one of the motors in the pair of motors.

6. (Withdrawn) The transmission system of claim 5, wherein the tachometer disk includes a plurality of openings surrounding the motor shaft.

7. (Withdrawn) The transmission system of claim 4, wherein the tachometer system comprises an optical encoder configured to read a rotation of a tachometer disk coupled to the motor shaft.

8. (Withdrawn) The transmission system of claim 1, where the drive cone is operatively disengageable from the wheel.

9. (Currently Amended) A scooter comprising:
a fuselage having a front portion and a rear portion;
a rear wheel rotatably mounted at the rear portion of the fuselage;
a standing platform supported by the fuselage for supporting a rider; and,

a transmission system mounted under the standing platform in the rear portion of the fuselage comprising a first motor with a wheel engagement element being operatively coupled with the rear wheel to allow the wheel engagement element to rotate the rear wheel when the wheel engagement element is engaged with the rear wheel;

where the first motor includes a shaft having a first end and a second end, wherein the wheel engagement element is mounted on the first end and a tachometer system is mounted on the second end.

10. (Previously Amended) The scooter of claim 9, where the first motor includes a shaft, and where the first motor is mounted so that

the shaft is parallel with a longitudinal axis running from the front portion to the rear portion of the fuselage.

11. (Original) The scooter of claim 9, where the rear wheel includes a sidewall and the wheel engagement element is shaped to engage the sidewall.

12. (Original) The scooter of claim 9, where the rear wheel includes a sidewall and the wheel engagement element is a cone.

13. (Original) The scooter of claim 9, further comprising a battery system mounted in the fuselage under the standing platform.

14. (Original) The scooter of claim 13, wherein the fuselage comprises a floor pan portion with a shape and the battery system comprises a battery shaped to conform to the shape of the floor pan.

15. (Original) The scooter of claim 9, where the fuselage has a U-shaped cross-section.

16. (Original) The scooter of claim 9, where the fuselage is tubular in shape.

17. (Cancelled)

18. (Previously Amended) The scooter of claim 9, where the transmission system further comprises a second motor with a second wheel engagement element mounted in parallel to the first motor and operatively coupled with the rear wheel to allow the second wheel engagement element to rotate the rear wheel when the second wheel engagement element is engaged with the rear wheel.

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19. (Previously Amended) The scooter of claim 9, where the transmission system further comprises a hinged mechanism to control the contact between the wheel engagement element and the wheel.

20. (Original) The scooter of claim 19, where the hinged mechanism is operable by a cable to control the contact between the wheel engagement element and the wheel.

21. (Original) The scooter of claim 19, where the hinged mechanism is normally in a state that allows the wheel engagement element to be engaged with the rear wheel.

22. (Original) The scooter of claim 19, where the hinged mechanism is normally in a state that allows the wheel engagement element to be disengaged with the rear wheel.

23. (Cancelled)

24. (Currently Amended) The scooter of claim ~~23~~ 9, wherein the tachometer system comprises a tachometer disk mounted on the second end of the shaft of the first motor.

25. (Previously Presented) The scooter of claim 24, wherein the tachometer disk includes a plurality of openings displaced around the second end of the shaft of the first motor.

26. (Previously Presented) The scooter of claim 23, wherein the tachometer system comprises an optical encoder mounted on the second end of the shaft of the first motor to determine a rotation of the shaft of the first motor.

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27. (Withdrawn) A transmission system comprising:
a motor;
a first drive cone coupled the motor; and,
a drive cone engagement mechanism configured to allow the first drive cone to be operatively coupled with a wheel to rotate the wheel.

28. (Withdrawn) The transmission system of claim 27, further comprising a second motor with a second drive cone mounted in parallel with the first drive cone, and the drive cone engagement mechanism is further configured to allow the second drive cone to be operatively coupled with the wheel to rotate the wheel.

29. (Withdrawn) The transmission system of claim 27, wherein the drive cone engagement mechanism comprises a hinged mechanism, operable by a cable, to vary the contact between the first drive cone and the wheel.

30. (Withdrawn) The transmission system of claim 27, wherein the drive cone engagement mechanism is normally in a state such that the first drive cone is engaged with the wheel.

31. (Previously Presented) The scooter of claim 18, where the rear wheel includes a sidewall and the second wheel engagement element is shaped to engage the sidewall.